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# What makes them (not) talk about proper medication use with their patients? An analysis of the determinants of GP communication using reflective practice

SANDRA VAN DULMEN PHD<sup>A</sup> AND EVELIEN VAN BIJNEN MSC<sup>B</sup>

<sup>a, b</sup> NIVEL (Netherlands Institute for Health Services Research), Utrecht, The Netherlands

## ABSTRACT

Many patients do not use their medication as prescribed. This non-adherence is a well-known and resistant problem, requiring good physician-patient communication. However, when it comes to talking about (non-)adherence, both physician and patient refrain from putting the topic high on the agenda. The reasons for doing so are far from clear. We therefore conducted a qualitative, video-facilitated study to find out why physicians communicate with their patients about medication use and adherence in the way they do. Using reflective practice, 20 general practitioners (GPs) independently watched video-recordings of their own visits and were asked to reflect on 'critical incidents' operationalised as segments of a visit which ask for a discussion of proper medication use or adherence. Determinants of such a discussion appeared to be the type of medication, patient and GP characteristics, and particular elements of the medical visit and of the broader practice organisation in which the visit took place. Determinants mentioned most often were a lack of time, other priorities, being acquainted with the patient, reluctance to disclose too much information out of a risk of reinforcing side-effects, and relying on the patient for returning to the GP office when existing complaints persist. Apparently, many GPs are biased when it comes to discussing proper medication use and preventing non-adherence. These results provide input for developing communication interventions and guidelines for discussing medication use with patients more elaborately. Reflective practice appeared to be a valuable and appreciated tool to investigate determinants of physician behaviour.

## INTRODUCTION

Non-adherence to prescribed medication is a serious and hard to solve problem. Studies indicate that in developed countries, non-adherence averages from 25% up to 50% in patients with a chronic disease [1,2]. This is problematic, as it implies that many chronically ill patients, whose numbers increase rapidly [1], do not benefit from medical treatment [3], and scarce health care resources are partly wasted. Although successful adherence interventions do exist [4-8], half of interventions seem to fail [9].

There are multiple determinants of patient (non)adherence. Psychological traits, such as beliefs in medication and personal effectivity, have been found to increase adherence, whereas treatment factors such as the frequency and the timing of medication intake and experienced side effects decrease the level of adherence by the patient [1]. Apart from such personality and medication related determinants, prescriber characteristics seem to affect adherence rates as well resulting in much variation in the patient adherence

levels among different prescribers [10]. This may well be explained by the way physicians communicate with their patients [11-14]. A recent meta-analysis indeed shows that patients have 19% higher adherence when their physician communicates well [15], as exemplified by giving clear and understandable information and by attending to patient's misconceptions and concerns [12]. Although an improvement of communication in the consulting room may thus seem a logical and easy way out of the non-adherence impasse, physicians appear to spend little time on discussing proper medication use and adherence when prescribing medication [16]. A recent study for example shows that communication about side effects only occurs in one third of general practice visits and the importance of proper medication use is explained even less [17,18].

Prins and colleagues developed guidelines for prescribers and patients to facilitate communication about medication adherence [18]. A prerequisite to a successful implementation of these guidelines is an understanding of the factors that hinder or facilitate physicians' discussion of proper medication use and adherence. So far, research primarily focused on the effects of physician communication on patient adherence [19]. Research to qualitatively explore adherence communication is scarce [20]. This study aims to fill this gap by providing insight into physicians' reasons for talking or not talking about the importance of proper medication use with their patients. We thereby focus on general practitioners (GPs) as, in the Netherlands, GPs prescribe more than 80% of all medications [21].

### **Methods: Study sample**

This study is part of a larger video-observation study investigating GP-patient communication [22]. Neither GPs nor patients were aware that communication about adherence was a topic of interest. The larger study contained 40 Dutch GPs who agreed to have 15–20 of their visits videotaped. The recording with an unmanned camera took place over one or two days in 2007 and 2008. The study was carried out according to Dutch privacy legislation. The privacy regulation was approved by the Dutch Data Protection Authority. Approval by a medical ethics committee was not required for this observational study. All participating GPs and patients filled in an informed consent form before the recording of the visit. Due to the position of the camera the patients were only visible at the back of their head or not visible at all. A total of 808 visits was recorded.

For the purpose of the present study, the participation of 20 GPs was considered enough to reach data saturation [23]. From each of these GP, two videotaped visits were selected in which medication was prescribed. These two visits provided the input for the reflective practice.

### **Reflective Practice**

Reflective practice is an introspection procedure in which videotaped situations are replayed to the actors to stimulate recall of their concurrent cognitive processes during previously selected critical incidents [24]. As part of this methodology, the interviewer shows prompts from videotaped visits to elicit the GPs' subjective experience in terms of beliefs, values, attitudes and considerations of the subject [25]. The power of this method lies in its concrete and situational approach. The guidelines from Prins et al were used to identify critical incidents, i.e. segments of the visits which ask for a discussion about proper medication use or adherence [18]. Such a discussion could either start with an exploration, an elaboration, or an education on the part of the GP [26]. Examples of questions asked during the reflective practice interview were why the GP provided only little information about the effects of a certain medication, while in other visits he talked about the same medication more elaborately; why the GP did not inquire about patient experiences of using some previously prescribed medication; or how come the GP ignored a patient cue suggesting a concern about a specific type of medication. In the last stage of reflective practice, GPs were asked about any ideas they might have to put the topic of proper medication use higher on their visit agenda.

### **Procedure**

Before the interviews took place, the GPs received a secured internet link through which they could watch the two selected visits. At the same time, they received a written, individual feedback report showing scores on their own communicative behaviour, relative to the scores of their colleagues [22]. The scores related to the amount of instrumental and affective behaviour as measured with the Roter Interaction Analysis System, an observation instrument specially developed for analyzing communication in health care [27]; the amount of patient-centered communication (see figure 1 for an example) and of patient-directed gaze, which is known to facilitate patient talk [28]; and the length of the GP visits. In the reflective practice

interviews, the focus was on GP's communication about medication use and adherence. Where relevant, the GP's overall communicative behaviour was discussed as well. The GPs were visited in their own practices and the interviews lasted approximately one hour per GP. For their participation, GPs earned four CME points.

### **Analysis**

The reflective practice interviews were held between August and October 2009. The first ten interviews were conducted by two interviewers together (SvD and EvB), the second half by one interviewer (EvB). The conversations were audio-taped and all phrases related to communication surrounding medication use and adherence were transcribed verbatim. Recurring themes emerging from the transcripts were, similar to an earlier study [29], categorised in medication, patient, GP, visit, and organisational characteristics. In the results section, different themes are illustrated by quotes from the reflective practice in italics.

## **[FIGURE 1]**

## **RESULTS**

### **Sample characteristics**

Twenty-three GPs who had previously indicated their willingness to receive video-feedback, were asked to participate in the reflective practice intervention. Of these

23, two GPs refused to participate and one GP could not participate due to a long lasting disease. Table 1 shows the characteristics of the 20 GPs and of their selected visits. Two-thirds of the GPs were male; half of them worked in a group practice. In the 40 visits which were selected for reflective practice, the GPs prescribed a total of 57 medications.

### **Medication characteristics**

Type of medication According to the GPs, the elaborateness of their medication communication is largely determined by the type of medication they prescribe, being either medication for chronic diseases or for acute complaints. Apart from this, they consider the purpose of the medication as being relevant. Most GPs specifically stress the importance of educating patients about a correct use of chronic medication.

*When a patient is starting with chronic medication, it is important to prepare him well, mention the side effects. Normally I use more than one visit for this. Otherwise the patient will quit his treatment.*

When the primary goal of the treatment is a reduction of relatively harmless physical complaints, when prescribing for example analgetics, there is less need to discuss adherence according to most GPs. After all, most of these medications are to be used on demand only.

*Sometimes it is not necessary to prescribe medication, for example when it is only for painkilling or relieve of complaints. Non-adherence is less of a problem in such cases.*

When more than one treatment option is available as is the case with prescribing psychotropics versus psychotherapy for treating a major depression, GPs consider it important to provide extra information, to enable the patient to make a well-founded decision

Medication name Most GPs do not always mention the name of the medication. They give several reasons for this:

*Due to generic prescribing, sometimes patients receive a different medication at the pharmacy. To avoid confusion, I often do not mention the name of the prescription.*

*I am wondering what the value of naming the medication is. Often the names are complicated, I do not believe the patients will remember it well.*

Side effects Whether or not a GP mentions possible side effects when prescribing medication depends on their prevalence and severity and on certain characteristics of the patient. GPs sometimes withhold information out of fear of eliciting exactly these side effects in their patients.

*When prescribing, I ask my patients not to read the leaflet, it contains too much information. Instead I explain to them the most common side effects, so they know what to expect.*

*Actively mentioning side effects runs the risk of developing them. Too many patients report side effect from statins.*

Other GPs feel they should prepare the patients for possible side effects.

*Important and hindering side effects I always mention, so the patient is prepared for them.*

*Antidepressants always cause side effects in the beginning, so I always mention those.*

*First prescription versus refill* The interviews revealed that GPs accommodate their talk also to the type of medication being a first prescription or a refill.

They furthermore consider it important to provide the patient with clear information before the start of the treatment, to take away possible worries and to emphasize the importance of correct medication use. In the process of medication use monitoring comes into play by asking whether the patient has any questions and checking if there are intake problems.

Patient characteristics

*Medication literacy* A lot of GPs believe that patients do not want to know everything, and certainly can not remember everything that is said. For this reason, GPs sometimes restrict the amount of information about medication:

*I was educated to communicate a maximum of four messages per visit. You can not achieve everything.*

Another GP indicates that the pharmacist also provides patients with a lot of information. So he himself can inform less. Sometimes patients already have knowledge or experience with medication, for example when they have a medical background themselves. In such a situation, some GPs are inclined to explain less to the patient, although this can also be a pitfall:

*When patients are working in the medical sector themselves, you assume their knowledge is more extensive. But still you should try to explain everything.*

*Responsibility* Rights and duties of patients and caregivers are legally anchored in the Dutch Medical Treatment Act (1995). Following this Act, the patient should make the final decision about a treatment. However, some GPs feel that not every patient is up to that task:

*I tend to display some dominance during my visits. However, my practice population consists mainly of elderly people, letting them participate is difficult.*

Other GPs like their patients to be equal partners with whom responsibility can be shared and put extra effort in creating such a situation:

*I try to inform my patients as much as possible, also using leaflets and brochures. This way a more equal situation is created, by decreasing the gap in knowledge. Only then the patient is really capable in sharing responsibility.*

GP characteristics

*Acquaintance with a patient* As Dutch GPs have fixed patient lists, they usually maintain a long-term relationship with their patients. A lot of GPs consider this an advantage which for example pharmacists do not have. Nonetheless they acknowledge that it can also be a pitfall, because they have developed assumptions about their patients which they do not always check. One of them says:

*After a while you know which patients take their medication and which do not.*

Another GP, talking about patients he has been treating for 30 years:

*I am certain that these patients always take their medication as they should, I do not have to check that, it is so obvious. I would bet on it.*

On the other hand, they do recognise their personal assumptions and realise these can be incorrect:

*It depends on the patient which side effects I mention. I do realise that I may be prejudiced.*

*Treatment goal* The GPs in this study differ regarding the treatment goals they have. Often the goal is considered to be curing the patients from his complaints, to end the episode. Adherence is not seen as a goal in itself.

*I am not able to check whether a patient takes his medication. When they do not return to my practice, I assume the episode is finished. When they return later for another complaint, I will not check the medication of the former episode.*

Most GPs are having trouble keeping control of the medication use and adherence of the patients. They feel that, what happens in the patients' own homes after they exit the GP practice, is out of their hands.

*To what extent should you interfere? Calling after three days to ask how things are going makes you a very paternalistic GP. I think my patients would feel very patronized.*

Often the GPs indicate that it is difficult to deal with patients who do not share their opinion. For example regarding the necessity to prescribe medication:

*In a conflicting situation when the patient prefers another treatment, sometimes I just give in, even if I do not agree. It takes too much energy to convince the patient.*

Views Most GPs in this study know how important adherence and medication use in general are. Nonetheless some do believe that their patients think differently.

*I am wondering whether my patients also have such a high non-adherence rate.*

The interviewed GPs do not all believe they can influence their patients. Their views determine the extent to which they give attention to correct medication use. Some approach their patients in a positive way being aware of the power of their words and of using communication as a therapeutic instrument:

*The patient can be influenced by the way you promote a prescription. Raising positive expectations works by creating a placebo effect*

Others have less faith in such therapeutic effects:

*Even if you explain everything correctly, people sometimes still forget.*

Visit characteristics

*Limited time* The GPs unanimously mention limited time as one of the most salient factors determining the content and elaborateness of communication about proper medication use and adherence. They consider the average duration of ten minutes per visit too short to fulfil all their duties, like adhering to clinical guidelines and performing all kinds of administrative tasks. One of the GPs clearly states:

*If we have to fulfil everything they like us to do, ten minutes is not enough. If we would have 20 minutes, I would bring up the topic of medication more often.*

Others explain the way in which time pressure affects their communication:

*I could give the patient more information on side effects, but it would be at the expense of another topic.*

Because of the lack of time, GPs feel they need to prioritize:

*Medication adherence has no high priority. Time pressure forces you to make choices. Discovering the necessity for treatment is more important.*

*When you experience time pressure, you can skip the social talk. Just treat the complaint, and send the patient off. But working like that makes my work less enjoyable. The downside is causing delay.*

Due to time pressure GPs sometimes refrain from asking more questions, this way countering possible extensive reactions from their patients which might cause even more delay in their visits. One GP mentions: *Asking more questions about complaints and why the patient wants treatment brings along the risk of extra stories and questions from patient's side, causing delay. So sometimes, you just do not ask questions.*

*Phasing of the visit* Prescription are usually handed out at the end of the visit, when time pressure is felt most. A lot of GPs indicate that this affects their communication. Giving extra information about the medication might elicit subsequent questions or stories in the patient for which the GP does not have enough time.

*At the end of the visit, it takes a lot of time to enter a new discussion concerning the medication. So you skip that.*

According to one of the GPs, a lack of time forces one to prioritize:

*Prescriptions are usually given at the end of the visit: so schedule for this. If the topic is important, give it enough time in your visit.*

Organizational characteristics

*Guidelines* Guidelines stimulate the prescription of preferred medication for particular diseases, like simvastatin for high cholesterol levels. One GP mentions difficulties in communicating guidelines and choices to the patient, especially when he does not support them.

*You are better able to sell something you support.*

A lot of GPs adapt their communication to the individual patient with his/her specific complaints and needs. Like one of them argues:

*I am convinced I do not always act according to the guidelines, but general practice can not be performed like cooking instructions. You have to use the ingredients, but you should also be able to deviate when necessary. I will always motivate such a deviation.*

*Cooperation* Apart from GPs, also practice nurses and pharmacists take care of patients with chronic diseases. Several GPs mention the importance of accommodating the different caregivers' instructions to the patient.

*Providing patients with information is partly delegated to the pharmacist. I believe they explain more than we are aware of.*

Within Dutch Pharmaco Therapeutic Assemblies the different caregivers try to reach agreement on medication-related issues. For example regarding the instruction of inhalation medication, which often takes place at the pharmacy, while the patient also has regular control visits with the practice nurse and once a year with the GP. GPs have strong opinions regarding this situation, which affect their communication:

*The pharmacist informs me when a patient is overdue picking up a refill medication. This makes it easier for me to discuss this during a control visit.*

Some GPs more actively participate in this process than others:

*GPs and practice nurses should cooperate in taking care for chronic patients, with GPs taking the lead. Pharmacists can support them. But in the end, the patient decides.*

Others do not want to dominate the relationship:

*Regarding the issue of adherence, I believe GPs have a signaling function. Still, I do not want to patronize, there should be a shared responsibility between GP and patient.*

## DISCUSSION

The aim of this study was to gain insight into the determinants of the content and process of GP communication concerning medication use and adherence with their patients. The results of the study increase our knowledge about the underlying mechanisms concerning adherence communication. Using reflective practice, GPs displayed many thought processes and motives for talking to their patients in the way they do. These determinants could be categorised in different groups referring to medication, patient, GP, visit and organisation characteristics. Because of this apparent multi-layered process of more or less intentionally choosing a particular communication strategy, there is not one straightforward strategy for increasing GP talk about medication use. Some determinants, such as the relatively short duration of a medical visit, ask for changes in health care policy, which may fall short because of cost containment. Other determinants, such as the priority GPs assign to discussing medication use and adherence, might be influenced by giving GPs as well as practice nurses and pharmacists more information about the effects their communication can have on medication adherence and other patient behaviours. Alternatively, given the shortage of time related to the discussion of medication use, Tarn and colleagues have recommended to redesign time-compressed office visits “to promote improved provider-patient communication about new medications.” [29] Another solution put forward by the GPs that participated in this study is to transfer the responsibility for a proper medication talk (partly) to the pharmacist. As patient education has recently become an integral part of Dutch pharmacists’ competence profile, this might become more common practice in the short run, provided, again, that pharmacists have enough time to spend on patient education and instruction [31]. Still, according to the GPs in this study, motivating the patient to take their medication as prescribed should remain the exclusive task of GP and practice nurse. In addition, continuous evaluation and monitoring of the delineation of communicative tasks among all the different caregivers seems warranted to prevent the classical risk of no one taking responsibility as a result of the division of duties. Another solution might be to come to an agreement with the pharmacist to be informed about patients being structurally non-adherent and direct adherence communication primarily to the non-adherent patients. This will become more easy with the full implementation of the electronic medical record. Lastly, in medical education, more attention could be given to the importance and preferred content of communication about proper medication use and adherence.

## METHODOLOGICAL REFLECTIONS

The reflective practice interviews helped to elicit GPs’ reasons for talking about medication use in the way they do. A limitation of this study was the long recall period. Sometimes this was as long as 1.5 years. This long period resulted from the fact that first all 808 visits videotaped as part of the parent study had to be analysed, which is a time-consuming process. However, despite the fact that the video-recordings were made some time ago, the GPs reported no problems remembering the visits. Some of them even noted that reflection was even better because of the longer time span.

## CONCLUSION

Regular reflective practice can help GPs to remain conscious of their own attitudes and motives to act in a given way. According to most GPs participating in this study, communication about adherence should be tailor made by not thoughtlessly applying guidelines but by paying attention to patient's needs. In this study, patients' perspective is lacking. Their opinion is, however, equally important in order to safeguard shared control and decision making in the medical visit, key components of patient-centered care. [32] As a part of standard prescribing practice, GPs could for instance ask whether or not a patient wants to be informed about all side effects or only about the most salient ones, or if the patient wants to know the exact name of the medication. By doing so, communication about medication use can become more tailored to patients' needs and attitudes.

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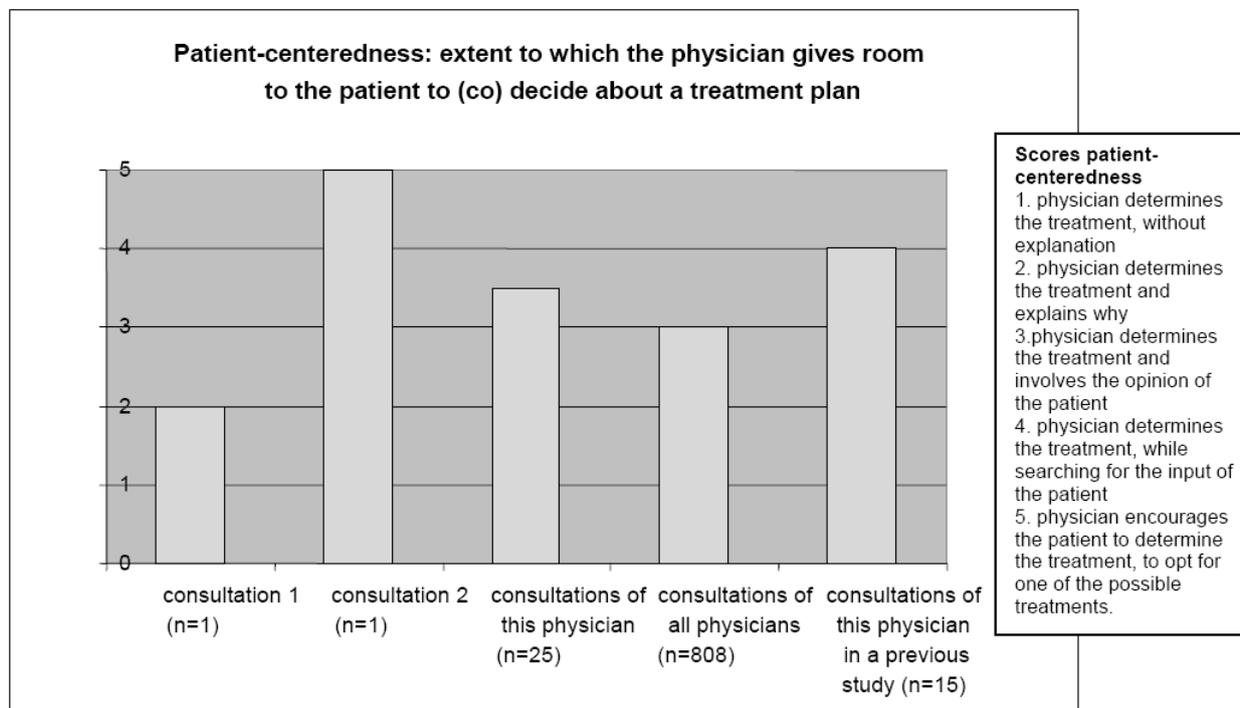
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[tables and figures]

**Figure 1. Example of a GP's scores on patient-centered communication, as part of the feedback report [22]**



**Table 1. Sample characteristics**

<i>Number of GPs</i>		<b>Number of prescriptions*</b>	
Average age in years (sd)	20	N Nervous system	23
Gender (male) %	51.5 (5.96)	N01 Anaesthetics	3
Number of solo practices	65	N02 Analgesics	10
		N05 Psycholeptics	2
		N06 Psychoanaleptics	8
<i>Number of visits</i>			
Visit length in minutes (sd)	40	A Alimentary tract	7
Number of prescriptions	57	J Antiinfectives	7
		of which refill	22
		R Respiratory system	7
		C Cardiovascular system	6
<i>Number of patients</i>		D Dermatologicals	3
Average age in years (sd)	41	Unknown	2
Gender (male) %	39	B Blood	1
		G Genitourinary system	1

\* Classification according to Anatomical Therapeutic Chemical (ATC) codes [30]